

Is Vaccination a Good Thing?

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Is there any one thing relating to the welfare of the human race that remains wholly unquestioned? To those who know what vaccination has done and is doing for the world, it is hard to understand how persons can doubt its value. Arguments against vaccination rest almost wholly upon these declarations: 1. "It is useless." 2. "It is dangerous." 3. "It is an invasion of personal liberty."

Is it useless?

In 1760 to 1765, before vaccination was known, it was estimated that 15,000,000 human beings died of smallpox every 25 years. Before the House of Commons, in London, the statement was made in 1802 that "It is proved that, in this United Kingdom alone, 45,000 persons die annually of smallpox. The French minister of the interior reported in 1811 that 150,000 people died every year of smallpox in France. The official Danish records say that in Iceland in 1707 smallpox destroyed 18,000 out of the total population of 50,000. Nearly two-thirds of the population of Greenland was taken away by smallpox in 1734. In 1752, when the total population of Boston was 15,884, a severe epidemic of smallpox started there. Of this number 5,998 persons previously had smallpox, in this epidemic 5,545 others had the disease, 2,124 inoculated themselves with smallpox virus, hoping thus to escape with a milder attack, 1843 people fled from the town to avoid the danger of infection. When the pestilence was over, only 174 persons were left who had never had smallpox.

Vaccination is the only reason why such smallpox calamities do not now swoop down upon us. It is not because of better surroundings, for smallpox and measles are two of the diseases that go on irrespective of sanitary conditions. It is merely a matter of exposure to infection, with the saving grace of vaccination helping us in smallpox.

When the United States took charge of the Philippines, smallpox had for a long time been disastrously prevalent in the

islands. Just before the American occupation, in the provinces near Manilla, there had been 6,000 or more smallpox deaths annually, but the annual report of the Bureau of Health for the Philippine Islands stated that in 1907, after a systematic vaccination of the people had been done, not one smallpox death occurred.

The same lesson comes from Cuba. The disease was rampant in the island before America took temporary charge. Six per cent of the total number of deaths in Havana was from Smallpox. General vaccination was done. For years after that there were no cases of smallpox save those brought on vessels, with one exception. That was a male nurse in the hospital for contagious diseases to which a Syrian girl with smallpox had been taken off a boat. All the other nurses and doctors were protected by vaccination, but this man who took smallpox and died of it evaded vaccination by deception.

The same results of the American occupation of Porto Rico are noted. Smallpox was banished by vaccination. Before the Chinese-Japanese War, smallpox epidemics were frequent in Japan. General vaccination stamped it out and smallpox epidemics have remained events of their earlier unenlightened years.

In those European countries where vaccination is compulsory, smallpox almost never arises among their own people; in those countries where vaccination is neglected, epidemics of smallpox are frequent. In Sweden, before the vaccination era, the deaths from smallpox were 2,045 per million of their population; with optional vaccination, 408 per million, with compulsory vaccination rigidly enforced, the rate from 1884 to 1893 was from 0.2 to 5 per million.

In earlier years wars were again and again lost by the neglect of vaccination. In the Franco-Prussian War, the French army had 50,000 cases of smallpox and many deaths; the German army, more carefully protected by vaccination, had only 300 cases. In the military administrations of all advanced countries vaccination is now considered an indispensable piece of strategical preparedness.

Physicians the world over trust to vaccination, and to nothing else, to protect themselves against smallpox. Two irregular practitioners in Maine a few years ago who did not believe in vaccination took smallpox. One died, the other was with difficulty saved from the same fate.

It is true that vaccinated persons may take smallpox. Sometimes persons have smallpox more than once. Persons with their second illness with smallpox have been seen in Maine in

recent years. One of the kings of France died in his second attack of that disease.

One vaccination has protected all through life even when there has been prolonged and intimate association with smallpox patients, but it is not best to trust too long to a single vaccination. Vaccination in early childhood and again ten or twelve years afterward, as is done for everybody in some countries, gives the people such a degree of immunity that epidemics of smallpox are unknown among them.

Is Vaccination Dangerous?

When the protective covering of the human body, the skin, is broken by a scratch, cut, or puncture, or by the breaking of a festering pimple or a boil, there is always the possibility of results that may be annoying or painful, or even fatal.

When vaccination is done we aim to produce a vaccine vesicle and pustule which will be protective against smallpox. This vesicle need not be a larger or more serious sore than a single one of the pustules covering the body of the smallpox patient in numbers ranging from a few to a thousand or more.

Ordinarily, the slight local annoyance at the site of the vaccination is the only troublesome result. If the vaccination does not receive proper care, is irritated, or if dirty fingers—which mean infectious fingers—come in contact with the vaccine sore, it receives a secondary infection which makes unnecessary trouble, and the vaccinated person may have a slight rise of temperature for a day or two, but this rarely occurs.

In smallpox, on the other hand, a secondary rise of temperature about the eighth day of the eruption is a characteristic symptom of the disease in all but mild cases, and this secondary fever is due to the absorption into the system of the poisonous matter in the smallpox pustules, and in severe cases of smallpox this blood-poisoning and its accompanying fever are intense. This blood-poisoning constitutes the critical stage of smallpox. That of vaccination is nothing in comparison with it.

One of the arguments of anti-vaccinationists is that if you are vaccinated, there is danger of having grafted into your system, syphilis, tuberculosis, or some forms of blood poisons. The questionable wisdom of that advice is shown by the fact that long ago arm to arm vaccination ceased; that all the vaccine now used is taken from calves which must be proved to be free from disease: that syphilis is never present and cannot be inoculated into the bovine race; that calves, at the ages used are almost never tuberculous (in one city one tuberculous calf only in 34,400 slaughtered and inspected, in another, one

tuberculous case in 22,230; nevertheless, before the vaccine is used, each calf in the vaccine establishment is slaughtered and carefully examined against the hardly existing possibility of tuberculosis; furthermore, the vaccine from the calf is put into a glycerine mixture which destroys every tuberculosis germ that might be present. It destroys them, when in experimental tests the tubercle bacilli are added in innumerable numbers. This "glycerinated vaccine" destroys just as effectively all the germs from which we might possibly get blood-poisoning.

A statistical investigation made in France some years ago showed that there was a decidedly smaller prevalence of tuberculosis among their people who had been vaccinated than there was among those who chose smallpox instead of vaccination.

The truth of the matter is that all the danger there is from vaccination comes from the possibility of secondary infection. As any broken place in the skin or slight sore may receive secondary infection, the place of vaccination should be kept clean, not rubbed or irritated, and from the sixth day or so, after it is certain that there is a "take," an antiseptic application should be at hand for application to prevent undue soreness.

As an example of the slight possibility of dangerous results from vaccination, in the Philippine Islands the United States authorities vaccinated, within a few years, 3,515,000 persons without a single death or any serious complications.

"It is an Invasion of Personal Liberty."

Is it? There might have been a chance for that question between Robinson Crusoe and his man Friday. But we, still standing for personal liberty so long as our acts do not conflict with the welfare and safety of other persons, have no right to establish a powder-house in a thickly populated community nor to maintain a nuisance which may endanger the health or lives of our neighbors, or otherwise be prejudicial to them. In the matter of smallpox we have personal responsibilities as citizens of our communities and of our state. If we fail to protect ourselves by vaccination and as a result have smallpox, we make public nuisances of ourselves. If we remain unvaccinated and escape smallpox we are an imposition upon others who, with more sense and a keener appreciation of their duties as good citizens, have actually protected us in some degree by having themselves vaccinated and thus lessening the "inflammable" material, and so making the chance for smallpox "conflagrations" much smaller than it is in a wholly unvaccinated community.